

524,506

Rec'd PCT/PTO 14 FEB 2005

(32) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number  
**WO 2004/017329 A1**

(51) International Patent Classification<sup>7</sup>:  
21/20, 21/02, G01D 5/26, 5/353

G12B 21/08,

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(21) International Application Number:

PCT/IB2002/003253

(22) International Filing Date: 14 August 2002 (14.08.2002)

(25) Filing Language:

English

(26) Publication Language:

English

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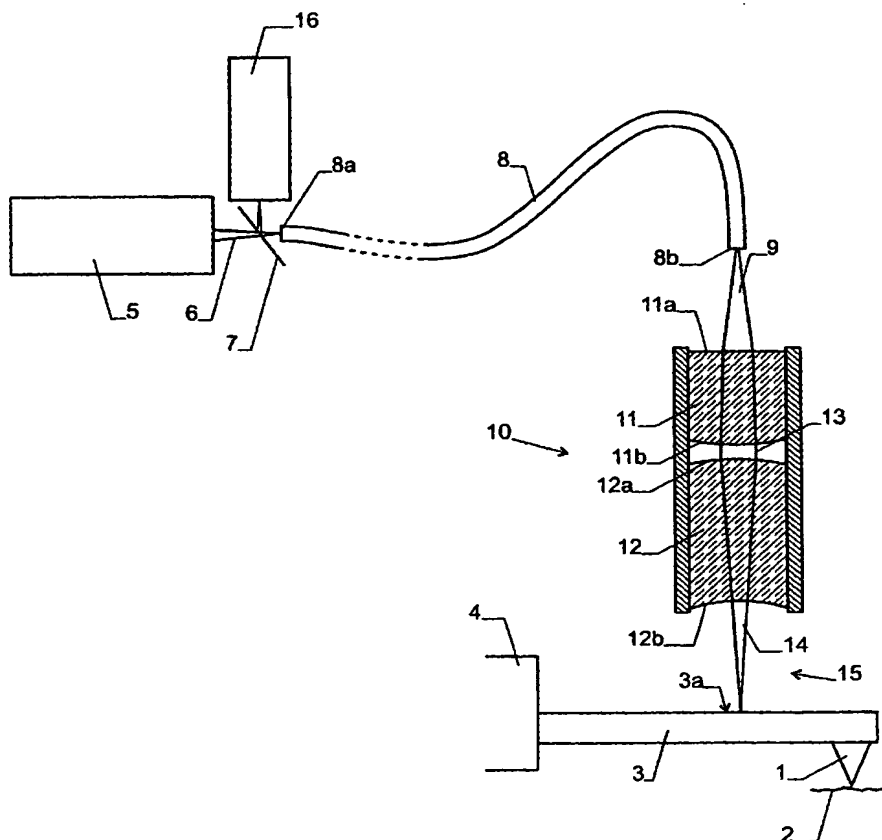
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(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,  
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,  
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SENSOR WITH CANTILEVER AND OPTICAL RESONATOR



(57) Abstract: An optical sensor, in particular for a scanning force microscope, measures the deflection of a cantilever (3) using an optical resonator between the cantilever (3) and an output surface (12b) of a lens assembly (10). In order to form the resonator, output surface (12b) is concave and parallel to the wavefronts of the light within the resonator. This design provides a resonator of high stability and allows to keep the distance between lens assembly (10) and cantilever (3) comparatively large.

WO 2004/017329 A1



**Published:**

— *with international search report*

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## INTERNATIONAL SEARCH REPORT

PCT/IB 02/03253

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G12B21/08 G12B21/20 G12B21/02 G01D5/26 G01D5/353

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G12B G01D G01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/000511 A1 (SCHAFER TILMAN E ET AL) 3 January 2002 (2002-01-03) figures 3-6 paragraphs '0028!-'0034! ---	1-12
A	US 5 166 516 A (KAJIMURA HIROSHI) 24 November 1992 (1992-11-24) figures 1,3 column 3, line 30 -column 4, line 37 ---	1-12
A	EP 0 557 743 A (IBM) 1 September 1993 (1993-09-01) figure 1 column 4, line 22 -column 5, line 14 --- -/--	1-12



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Date of the actual completion of the international search

8 April 2003

Date of mailing of the international search report

17/04/2003

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

PCT/IB 02/03253

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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PCT/IB 02/03253

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